

What is claimed is:

1. A drive shaft support structure for a marine propulsion machine having a gear case forming a lower part of the marine propulsion machine and provided with a vertical drive shaft receiving bore and a gear chamber connected to the lower end of the drive shaft receiving bore and receiving a bevel gear mechanism for transmitting power of a drive shaft supported in the drive shaft receiving bore for rotation in a bearing fixedly held in the drive shaft receiving bore, to a propeller shaft, said drive shaft support structure comprising:

a bearing-fastening member for holding the bearings in the drive shaft receiving bore so that the bearings are longitudinally immovable in the drive shaft receiving bore; and

a covering member penetrated by the drive shaft, disposed above the bearing-fastening member, and closing an open upper end of the drive shaft receiving bore in a liquid-tight fashion.

2. The drive shaft support structure according to claim 1, wherein the gear case is provided in a part of the drive shaft receiving bore with an internal thread, the bearing-fastening member is provided with an external thread capable of mating with the internal thread of the gear case, and the bearing-fastening member is screwed in the part provided with

the internal threaded of the drive shaft receiving bore to hold the bearings fixedly in the drive shaft receiving bore.

3. The drive shaft support structure according to claim 2, wherein a part of the drive shaft receiving bore extending below the internal thread is reduced to form a shoulder, the bearing is seated on the shoulder, and the bearing-fastening member is screwed in the part provided with the internal thread of the drive shaft receiving bore so as to press the bearings against the shoulder to hold the bearing between the bearing-fastening member and the shoulder.

4. The drive shaft support structure according to claim 3, wherein a part of the drive shaft receiving bore between the internal thread and the shoulder is tapered downward to form a tapered bearing part, each of the bearings has a tapered circumference tapering downward, and the bearing is held in place in the drive shaft receiving bore with the tapered circumferences thereof in close contact with the tapered surface of the tapered bearing part of the drive shaft receiving bore.

5. The drive shaft support structure according to claim 2, wherein the bearing-fastening member has a ring shape and has a polygonal central hole in which a turning tool engages.

6. The drive shaft support structure according to claim 2, wherein the bearing-fastening member is provided at its lower end with an annular ridge that is pressed against the

bearing.

7. The drive shaft support structure according to claim 1, wherein an open upper end of the drive shaft receiving bore is sunk beneath an upper surface of the gear case, the covering member is provided with a flange, and the covering member is positioned with the flange seated on the open upper end of the drive shaft receiving bore.

8. The drive shaft support structure according to claim 7, wherein the covering member has a body part having the shape of a disk, an upper cylindrical part projecting upward from the body part, an inner cylindrical part projecting downward from the body part, and an outer cylindrical part projecting downward from the body part and surrounding the inner cylindrical part, and the outer cylindrical part is fitted in the upper end part of the drive shaft receiving bore.

9. The drive shaft support structure according to claim 7, wherein the body part of the covering member is provided with a boss, and the boss is attached to the gear case.

10. The drive shaft support structure according to claim 8, wherein a sealing member is held between the inner cylindrical part and the drive shaft, and an O-ring is held between the outer cylindrical part and a side surface of the drive shaft receiving bore.

11. The drive shaft support structure according to claim 1, wherein a space is formed between the covering member and

the bearing-fastening member in the drive shaft receiving bore, and the space is connected through a connecting hole to a lubricant supply source.

12. The drive shaft support structure according to claim 1, wherein an under panel having an opening through which the drive shaft is passed is disposed on the upper surface of the gear case so as to extend across the drive shaft receiving bore, and a water pump driven by the drive shaft is mounted on the under panel.